SOFTWARE DEVELOPMENT PRICING

A Report for
National Westminster Bank

Software Development Pricing

Table of Contents

(Blank)

Introduction

A

Objectives and Scope

INPUT WAS commissioned to conduct a field research project to establish an independent benchmark of professional services pricing data for National Westminster Bank. The information is to be used to monitor the rates for the billing of a software development project under contract for the upgrade of the Advances Management Information Database (AMID).

Originally, six companies were considered as possible benchmarking candidates to perform the AMID upgrade. Of these, one was discounted because the company was only able to offer professional services allied to their proprietary system. A further two were discounted on the grounds of insufficient relational database expertise.

With the agreement of National Westminster Bank, the study has therefore been restricted to a sample of three professional services companies who are perceived by INPUT to be of sufficient caliber to undertake work of this kind. These are namely:

- CMG

- Cap Gemini Sogeti

- Logica

To maintain a request for confidentiality on behalf of the above companies, INPUT has produced a second report to be issued to PA Consulting, referring to these organisations as X, Y and Z only.

B
Methodology and Definitions

The first stage of the research project was the definition of the tasks being run by P.A. Consulting for the National Westminster Bank. This information is incorporated into Appendix A.

The choice of firms was limited to those capable of meeting the technical criteria supplied by Natwest and set out in Appendix B. Implicit was an awareness of the need for a consulting component in this exercise.

In order to provide a more realistic assessment, as part of the second stage, each company was invited to submit rates pertaining to a job specification supplied by Natwest, which included the duration of the project (143 days), together with the number of days to be allocated to each staff level.

Using BCS classifications, INPUT then matched as closely as possible the professional services rates being quoted by competitive firms for their various staff grades with those defined by the given staff grades/descriptions.

From this information, a set of fee rate tables were prepared for each of the following staff positions:

- Project Leader (PL)
- Project Consultant (PC)
- Development Team Leader (TL1)
- Team Leader Back End (TL2)
- Team Leader Testing (TL4)
- Architect/Designer Back End (AP1)
- Architect Designer Front End (AP2)

- Analyst Programmer Back End (AP1) and (AP2)
- Analyst Programmer Front End (AP3)
- Tester (AP4).

Actual fee rate responses are incorporated into Appendix C and a normalised set of rates are incorporated in Section II-B. As Cap Gemini Sogeti provided list rates for this exercise, INPUT has assumed a 20% discount to these rates.

C
Report Organisation

Chapter II contains daily fee rate tables for each of the management consultants surveyed in this report. As several different staff grades attracted the same day rates, these tables are split into six bands only.

A second set of tables is provided on a company by company basis which itemises total rates for the 140 day project.

II

Vendor Pricing Structures

Section II-A of this chapter provides daily fee rate tables for the competitive firms, with bands ascribing to BCS codes noted as appropriate. Given that the same day rates pertained to several staff levels, these have been grouped accordingly.

Section II-B provides normalised totals of contract rates submitted by respective competitive companies.

A

Daily Fee Rates Matched to AMID Personnel Groups

Exhibit II-1 provides a table of software developers' day rates matched to the staff levels being provided by PA Consulting.

Exhibit II-1

Competitors' Daily Fee Rates (£)

PA Consulting Job Category	Code	BCS Level	CMG	Cap Gemini	Logica
Project Leader	PL	PRMG7	600	844*	800
Project Consultant**	PC	PROF3	600	544*	600
Development Team Leader	TL1	PRMG5/6	500	544*	700
Team Leader Back End Team Leader Testing	TL2 TL4	PRM4/5,PROG4 PRM4/5,PROG4	450	544*	700
Archt/Designer Back End Archt/Designer Front End	AD1 AD2	PROG4 PROG4	450	544*	600
Analyst/Prgrmmr Back End Analyst/Prgrmmr Back End Analyst/Prgrmmr Front End Tester	AP1 AP2 AP3 AP4	PROG3 PROG3 PROG3 PROG3	400	456*	400

Source: INPUT

*   Denotes day rates which assume 20% deduction from list price
** Denotes Technical Consultant

B

Normalised Totals of Contract Rates

Aggregated Fee Rates for CMG (£)

PA Consulting Job Category	Code	Budgeted Days	Total
Project Leader	PL	142	85,200
Project Consultant	PC	115	69,000
Development Team Leader	TL1	142	71,000
Team Leader Back End	TL2	109	49,050
Team Leader Testing	TL4	142	63,900
Archt/Designer Back End	AD1	142	63,900
Archt/Designer Front End	AD2	142	63,900
Analyst/Prgrmmr Back End	AP1	143	57,200
Analyst/Prgrmmr Back End	AP2	100	40,000
Analyst/Prgrmmr Front End	AP3	111	44,400
Tester	AP4	116	46,400
		Total 1404	653,950

Source: INPUT

Aggregated Fee Rates for Cap Gemini (£)

PA Consulting Job Category	Code	Days	Total
Project Leader	PL	142	119,848*
Project Consultant	PC	115	62,560*
Development Team Leader	TL1	142	77,248*
Team Leader Back End	TL2	109	59,296*
Team Leader Testing	TL4	142	77,248*
Archt/Designer Back End	AD1	142	77,248*
Archt/Designer Front End	AD2	142	77,248*
Analyst/Prgrmmr Back End	AP1	143	65,208*
Analyst/Prgrmmr Back End	AP2	100	45,600*
Analyst/Prgrmmr Front End	AP3	111	50,616*
Tester	AP4	116	52,896*
		Total 1404	765,016*

Source: INPUT

* Denotes figures assuming 20% discount applied to long term day rates

Aggregated Fee Rates for Logica (£)

PA Consulting Job Category	Code	Days	Total
Project Leader	PL	142	113,600
Project Consultant	PC	115	69,000
Development Team Leader	TL1	142	99,400
Team Leader Back End	TL2	109	76,300
Team Leader Testing	TL4	142	99,400
Archt/Designer Back End	AD1	142	85,200
Archt/Designer Front End	AD2	142	85,200
Analyst/Prgrmmr Back End	AP1	143	57,200
Analyst/Prgrmmr Back End	AP2	100	40,000
Analyst/Prgrmmr Front End	AP3	111	44,400
Tester	AP4	116	46,400
		Total 1404	816,100

Source: INPUT

Appendix A

AMID Job Categories

The abbreviations shown after the position are used to identify the resources both in this document and in the Project plan.

Each position shows the following:
- required skill-set for the role including a guide to a BCS ISM3 grading for the job
- additional skills where needed for specific resources
- the specific skills to be used for those tasks.

Position: **PROJECT LEADER (PL)**

Skill-Set: 10+ Years IT experience
Minimum 5 years project management experience or a formal project management qualification
Systems development background
Typically, a good degree in a numerate/computing discipline
Verbal & written communication skills
Typically received wide general management training covering team management, leadership skills and motivation

Tasks: Day to day management of project reporting to Project Manager & Project Board. Ensure comprehensive project, quality and risk plans are prepared and maintained. Ensure that problems are identified at the earliest opportunity and solutions are identified and implemented in line with the banks Change Control processes. Gain commitment from other Bank areas, and manage their progress/deliverables against the plan. Collect sign-offs from the project documentation, and from the Quality Control reviews.

Grade: This role would equate Project Management Level 7 (PRMG 7) using the BCS ISM3 model.

Position;   **TEAM LEADER (TL1, TL2, TL4)**

Skill-set: Minimum 6 Years IT experience
                Typically a good degree or similar qualification
                Project planning experience
                Project implementation & rollout experience
                Experience of the full life cycle of system design, development &
                implementation with team leading experience of at least two of these Team
                management skills
                Trained in leadership skills and team motivation
                Communication skills
                Trained in eliciting user requirements
                Experienced in using RSD techniques
                Knowledge of at least two structured analysis/design methods or an in-
                depth knowledge of analysis and design techniques
                Experience in developing client-server systems
                Knowledge of quality processes

Additional Skills: **TL2**   Architect/Designer skill-set
                TL4   Experience of managing Test Team and system and
                         implementation with extensive knowledge of regression
                         testing and test automation techniques

Tasks:
TL1   *Development Team Leader*
                General: Responsible for development workstreams and
                             implementation reporting directly to the Project Leader.
                             Prepare and maintain realistic workstream, quality and
                             implementation plans. Leads the development team
                             allocating and monitoring tasks.

TL2   *Back End Team Leader*
                General: Co-ordinate all database design & development and all
                             source systems leads changes. Additionally, a hands-on
                             development role is undertaken.

                Task Skills: C++, SQQL Server, NT, database design & performance.

TL4   *System Test Team Leader*
                General: Co-ordinate the test strategy, hands-on system testing, liaise
                             with business to structure UAT, implementation strategy.

                Task Skills: Testing Strategy & implementation. Migration strategy for
                             upgrade to SQL Server V6.5, VB4.

Position: **PROJECT CONSULTANT (PC)**

Skill-set: Minimum 5 years IT experience
Familiar with the project development life-cycle
Trained in Project Management techniques
Qualified in Change Process Management, Configuration Management,
Report Writing.

Tasks: Set up and maintain project management processes, procedures, tools and
techniques. Produce planned and updated project and summary reports,
including cost breakdowns and summaries. Provide tracked plans &
financial documentation to the PSO & Project Manager. Help to produce
and maintain project documentation, change records and risk register.

Grade: This role would equate to Project office Level 3 (PROF 3) using the BCS
ISM3 model.

Position: **ARCHITECT/DESIGNER (AD1, AD2)**

Skill-set: Minimum 5 years IT experience
2 years experience in advanced database design & performance techniques
Expert in logical & physical database design and implementation
SQL Server 4.2 & 6.5 and SQL Server Tools experience
SQL Stored Procedure knowledge
2+ Years C/C++ programming experience
Experience in using RSD techniques
NT knowledge
Data loading experience

Additional Skills: **AD2**   Rules Based System Architecture experience

AD1   Task Skills: C++, SQL Server, NT, database design &
performance

AD2   Task Skills: C++, SQL Server, NT, Rule-based design
knowledge, database design & performance.

Position: **ANALYST/PROGRAMMER (AP1, AP2, AP3, AP4, AP5, AP6)**

Skill-set: Minimum 2 years IT experience
Visual Basic 3.0 & 4.0 programming and GUI design experience
2+ Years C/C++ programming experience
OLAP design and programming experience (ACUMEN)

YAMID INPUT 1997 Proprietary

Experience in Functional Analysis and analysis of user requirements
Trained in database design, OO design techniques
SQL Server 4.2 & 6.5 and SQL Server Tools experience
SQL Stored Procedure knowledge
Experienced in using RSD techniques
NT knowledge & MS Access 2.0
Business Objects query tool experience

Additional Skills: **AP4, AP5**   Test Plan and implementation experience

AP1   Task Skills: C++, SQL Server, NT, Rule-based design knowledge, database design & performance, OLAP design & development.

AP2   Task Skills: C++, SQL Server, NT Rule-based design knowledge, database design & performance.

AP3   Task Skills: ACUMEN, VB, SQL Server, NT database design & performance.

AP4 & AP5   General: Testing all requirements. Preparation of test scripts and creation of test packs. First level investigation of problems (i.e. knowledge of system design and code required).

AP6   General: System design & code knowledge across all requirements in order to provide full time support during warranty periods.

Task Skills: C++, VB, SQL Server, ACUMEN, NT, MS Access.

Grade: These roles would equate to Programming/Software Creation Level 3 (PROG 3) using the BCS ISM3 model.

Appendix B

AMID Project Requirements

AMID Thumbnail Sketch

The Advances Management information Datatbase (AMID) provides NatWest's Credit Strategy & policy department with the ability to analyse its lending book and so devise new and improved lending strategies. This client-server system is implemented on quadpentium NT servers with the client applications running on 486 PC's and Windows 3.1. AMID loads vast amounts of data from a variety of disparate systems and uses C++ and SQL to populate the databases. Primary data storage is through SQL Server, although because of the overall projected size of the database, on-line optical storage has been used to provide the necessary performance. The front-end provides the users with the ability to examine aggregated data through a of standard reports. By using multi-dimensional analysis tools (Acumen) and ad-hoc tools (Business Objects), the users are able to drill down or filter out unwanted data from the standard reports allowing them to focus on areas of particular interest. Both the multi-dimensional analysis functionality and standard reports are fronted by a GUI developed in Visual Basic. The problem of creating a consolidated view of the data loaded from the various source systems is addressed through the use of rules based technology. A tool has been developed, using Inference's ART*Enterprise, to allow the users to match records between source systems by employing exact and fuzzy matching techniques.

What is Needed

- Investigate and understand the existing AMID systems, referring to existing documentation.
- Analyse and consolidate written user requirements from a variety of sources, providing consultancy support, and liaising with business management.
- Produce software and database designs to meet these requirements, in accordance with Bank standards.
- Modify/enhance the existing software and database components in line with these designs, delivering additional components as required, again providing documentation in accordance with Bank standards.
- Test the modified/enhanced system in its entirety, matrix managing Bank user and IT staff as needed; and resolve all deviations from standards, design and requirements.
- Deliver the modified/enhanced system to meet Bank operational standards and provide support for an agreed warranty period.

- Project manage all the above.

Appendix C

Fee Tables as Supplied by Each Company

Aggregated Fee Rates for CMG (£)

PA Consulting Job Category	Code	Days	Total
Project Leader	PL	140	84,000
Project Consultant	PC	120	72,000
Development Team Leader	TL1	140	70,000
Team Leader Back End	TL2	110	49,500
Team Leader Testing	TL4	110	63,000
Archt/Designer Back End	AD1	140	63,000
Archt/Designer Front End	AD2	140	63,000
Analyst/Prgrmmr Back End	AP1	140	56,000
Analyst/Prgrmmr Back End	AP2	110	40,000
Analyst/Prgrmmr Front End	AP3	110	44,000
Tester	AP4	110	44,000
		Total 1370	648,500

Source: INPUT

Aggregated Fee Rates for Cap Gemini (£)

PA Consulting Job Category	Code	Days	Total
Project Leader	PL	140	147,700
Project Consultant	PC	120	81,600
Development Team Leader	TL1	140	95,200
Team Leader Back End	TL2	110	74,800
Team Leader Testing	TL4	140	95,200
Archt/Designer Back End	AD1	140	95,200
Archt/Designer Front End	AD2	140	95,200
Analyst/Prgrmmr Back End	AP1	140	79,800
Analyst/Prgrmmr Back End	AP2	100	57,000
Analyst/Prgrmmr Front End	AP3	110	62,700
Tester	AP4	110	62,700
		Total 1390	947,100

Source: INPUT

Aggregated Fee Rates for Logica (£)

PA Consulting Job Category	Code	Days	Total
Project Leader	PL	140	112,000
Project Consultant	PC	120	72,000
Development Team Leader	TL1	140	98,000
Team Leader Back End	TL2	110	77,000
Team Leader Testing	TL4	140	98,000
Archt/Designer Back End	AD1	140	84,000
Archt/Designer Front End	AD2	140	84,000
Analyst/Prgrmmr Back End	AP1	140	56,000
Analyst/Prgrmmr Back End	AP2	100	40,000
Analyst/Prgrmmr Front End	AP3	110	44,000
Tester	AP4	110	44,000
		Total 1390	809,000

Source: INPUT

-End of Text -

The abbreviations shown after the position are used to identify the resources both in this document and in the Project plan.

Each position shows the following:

- required skill-set for the role including a guide to a BCS ISM3 grading for the job
- additional skills where needed for specific resources
- the specific skills to be used for those tasks

Position :   **PROJECT LEADER (PL)**

Skill-set :   10+ Years IT experience
Minimum 5 years project management experience or a formal project management qualification
Systems development background
Typically, a good degree in a numerate/computing discipline
Verbal & written communication skills
Typically received wide general management training covering team management, leadership skills and motivation

Tasks: Day to day management of project reporting to Project Manager & Project Board. Ensure comprehensive project, quality and risk plans are prepared and maintained. Ensure that problems are identified at the earliest opportunity and solutions are identified and implemented in line with the Banks Change Control processes. Gain commitment from other Bank areas, and manage their progress/deliverables against the plan. Collect sign-offs from the project documentation, and from the Quality Control Reviews.

Grade :   This role would equate Project Management Level 7 (PRMG 7) using the BCS ISM3 model.

Position :   **TEAM LEADER (TL1, TL2, TL3, TL4)**

Skill-set :   Minimum 6 Years IT experience
Typically a good degree or similar qualification
Project planning experience
Project implementation & rollout experience
Experience of the full life cycle of system design, development & implementation with team leading experience of at least two of these
Team management skills
Trained in leadership skills and team motivation
Communication skills

Trained in eliciting user requirements
Experienced in using RSD techniques
Knowledge of at least two structured analysis/design methods or an in-depth
knowledge of analysis and design techniques
Experience in developing client-server systems
Knowledge of quality processes

Additional Skills :   **TL2**   Architect/Designer skill-set

                     TL3   Architect/Designer skill-set

                     TL4   Experience of managing Test Team and system
implementation with extensive knowledge of regression testing
and test automation techniques

Tasks:

     TL1   *Development Team Leader*

            General: Responsible for development workstreams and implementation
reporting directly to the Project Leader. Prepare and maintain
realistic workstream, quality and implementation plans. Leads
the development team allocating and monitoring tasks.

     TL2   *Back End Team Leader*

            General: Co-ordinate all database design & development and all
source system loads changes. Additionally,a hands-on
development role is undertaken.

            Task Skills: C++, SQL Server, NT, database design & performance.

     TL3   *Front End Team Leader*

            General :   Co-ordinate all reporting front end and hands-on design and
development of the AdHoc changes.

            Task Skills: C++, VB, Business Objects, SQL Server, stored procedures,
NT, database design & performance.

     TL4   *System Test Team Leader*

            General: Co-ordinate the test strategy, hands-on system testing, liaise
with business to structure UAT, implementation strategy.

Task Skills: Testing strategy & implementation. Migration strategy for upgrade to SQLServer v6.5, VB 4.

Grade :   TL1 would equate to Project Management Level 5 or 6 (PRMG 5/6) using the BCS ISM3 model.

TL2, TL3, TL4 roles include both management and hands-on development. Grades would be equivalent to Project Management Level 4 or 5 (PRMG 4/5) and Programming/Software Creation level 4 (PROG 4)

Position :   PROJECT CONSULTANT (PC)

Skill-set :   Minimum 5 years IT experience
Familiar with the project development life-cycle
Trained in Project Management techniques
Qualified in Change Process Management, Configuration Management, Report Writing.

Tasks: Set up and maintain project management processes, procedures, tools and techniques. Produce planned and updated project and sumary reports, including cost breakdowns and summaries. Provide tracked plans & financial documentation to the PSO & Project Manager. Help to produce and maintain project documentation, change records and risk register.

Grade :   This role would equate to Project Office Level 3 (PROF 3) using the BCS ISM3 model.

Position :   ARCHITECT/DESIGNER (AD1, AD2)

Skill-set :   Minimum 5 years IT experience
2 years experience in advanced database design & performance techniques.
Expert in logical & physical database design and implementation
SQL Server 4.2 & 6.5 and SQL Server Tools experience
SQL Stored Procedure knowledge
2+ Years C/C++ programming experience
Experienced in using RSD techniques
NT knowledge
Data loading experience

Additional Skills :   AD2 Rules Based System Architecture experience.

AD1	Task Skills:	C++, SQL Server, NT, database design & performance.
AD2	Task Skills:	C++, SQL Server, NT, Rule-based design knowledge, database design & performance.

Grade : These roles would equate to Programming/Software Creation Level 4 (PROG 4) using the BCS ISM3 model.

Position : **ANALYST/PROGRAMMER (AP1, AP2, AP3, AP4, AP5, AP6)**

Skill-set : Minimum 2 years IT experience
Visual Basic 3.0 & 4.0 programming and GUI design experience
2+ Years C/C++ programming experience
OLAP design and programming experience (ACUMEN)
Experience in Functional Analysis and analysis of user requirements
Trained in database design, OO design techniques
SQL Server 4.2 & 6.5 and SQL Server Tools experience
SQL Stored Procedure knowledge
Experienced in using RSD techniques
NT knowledge & MS Access 2.0
Business Objects query tool experience

Additional Skills : **AP4, AP5** Test Plan and implementation experience.

AP1	Task Skills:	C++, SQL Server, NT, Rule-based design knowledge, database design & performance, OLAP design & development.
AP2	Task Skills:	C++, SQL Server, NT, Rule-based design knowledge, database design & performance.
AP3	Task Skills:	ACUMEN, VB, SQL Server, NT, database design & performance.
AP4 **&** **AP5**	General:	Testing across all requirements. Preparation of test scripts and creation of test packs. First level investigation of problems (i.e. knowledge of system design and code required)
AP6	General:	System design & code knowledge across all requirements in order to provide full time support during warranty periods

Task Skills: C++, VB, SQL Server, ACUMEN, NT, MS Access.

Grade :   These roles would equate to Programming/Software Creation Level 3 (PROG 3) using the BCS ISM3 model.

AMID Thumbnail Sketch

The Advances Management Information Database (AMID) provides NatWest's Credit Strategy & Policy department with the ability to analyse its lending book and so devise new and improved lending strategies. This client-server system is implemented on quad-pentium NT servers with the client applications running on 486 PC's and Windows 3.1. AMID loads vast amounts of data from a variety of disparate systems and uses C++ and SQL to populate the databases. Primary data storage is through SQL Server, although because of the overall projected size of the database, on-line optical storage has been used to provide the necessary performance. The front-end provides the users with the ability to examine aggregated data through a set of standard reports. By using multi-dimensional analysis tools (Acumen) and ad-hoc tools (Business Objects), the users are able to drill down or filter out unwanted data from the standard reports allowing them to focus on areas of particular interest. Both the multi-dimensional analysis functionality and standard reports are fronted by a GUI developed in Visual Basic. The problem of creating a consolidated view of the data loaded from the various source systems is addressed through the use of rules based technology. A tool has been developed, using Inference's ART*Enterprise, to allow the users to match records between source systems by employing exact and fuzzy matching techniques.

What is Needed

- Investigate and understand the existing AMID systems, referring to existing documentation.
- Analyse and consolidate written user requirements from a variety of sources, providing consultancy support, and liaising with business management.
- Produce software and database designs to meet these requirements, in accordance with Bank standards.
- Modify/enhance the existing software and database components in line with these designs, delivering additional components as required, again providing documentation in accordance with Bank standards.
- Test the modified/enhanced system in its entirety, matrix managing Bank user and IT staff as needed; and resolve all deviations from standards, design, and requirements.
- Deliver the modified/enhanced system to meet Bank operational standards and provide support for an agreed warranty period.
- Project manage all the above.

consolve
consulting
limited

FAX

to: Chris Harris

at: Input
fax: 01753 577311
from: Graham Jump
fax: 01483 573401
date: 5/12/96

pages: 2 inclusive

subject: Exhibit A

Chris

Please find attached the signature page of your Exhibit A, signed as requested.

Thanks and regards, Graham Jump

Project Work Statement

Prepared by (print): *CHRIS HARRIS*	Date: *28.11.96*
Project Title: *PROFESSIONAL SERVICES FEE RATE BENCHMARKING*	Project Code: *1NAT2*
Client Name*: *NATWEST* *STUDY*	Project Manager: *CHRIS HARRIS*
Project Source:☐ Program ☐ Multi-Client ☑ Custom ☐ Other	
Project Type: ☑ Report ☐ Presentation ☐ Other	

Initiation Date: *28.11.96*	Begin Production: *20.12.96*
Midpoint Review: *11.12.96*	Shipping Date:
First Draft Due:	

Resources Required:	
Level of Effort (number of days): Consultant	R/A
Source—Internal/External (specify): *Internal: Management by full-time mgr.* *External: 12 days Graham, Imp.*	

Contract Value: $'£¥ *9,500*	Reimbursable Expenses: ☐ No ☑ Yes

Expense Budget: $'£¥ *950*
  To Cover: Travel: _____
  Report Preparation: _____
	Telephone: _____
	Other: _____

Project Description: *OBTAIN PROFESSIONAL FEE RATES ACROSS A MINIMUM OF 5 STAFF LEVELS FOR NATWEST AND A RANGE OF IT RELATIONS PROVIDERS. DATA TO BE INCORPORATED INTO A BRIEF REPORT.*

* Attach list for Multi-Clients   **For Custom and Multi-Client Projects

ACCOUNTING USE ONLY: Entered on current project list ☐

Project Specification Statement

Prepared by:	Approved by:
Date:	Date:

I. DESCRIPTION

A. Project Code:	B. Program:

C. Project Title:

D. Objectives: •

- •

- •

- •

E. Audience (order of priority):

	User/Vendor	Job Function	Type Company	Company Characteristics
1.				
2.				
3.				
4.				
5.				

F. Uses of Report:

G. Reasons for Choosing the Subject:

1.	
2.	
3.	
4.	

H. Client Interest:

Client	Interest Level/Comment

II. SCOPE

I. Scope of Study:

1.	Includes:
2.	
3.	
4.	

1.	Excludes:
2.	
3.	
4.	

J. Issues:

1.	
2.	
3.	
4.	
5.	
6.	
7.	

K. Forecast: ☐ No ☐ Yes	Period:
☐ Items to be Forecast	Level (e.g.: summary or detail*):
☐ IS Expenditures	
☐ Computer Equipment	
☐ Telecommunications	
☐ Personnel Expenses	
☐ Processing Services	
☐ Network Services	
☐ Professional Services	
☐ Systems Operations	
☐ Systems Integration	
☐ Software Products	
☐ Turnkey Systems	
☐ Other –	
☐ Other –	
☐ Other –	
☐ Other –	
☐ Other –	
☐ Other –	

L. Comments and Directions (include specific questions to be asked):

III. METHODOLOGY

M. Interview Profile:

1. Type of Interview and Interviewer Level

Type of Respondent	On-Site		Phone		Mail	TOTAL
	Consultant	R/A	Consultant	R/A		
User						
Vendor						
Other (specify)						
TOTAL						

2. Respondent Characteristics

Number of Interviews	Job Function	Company Characteristics (e.g.: SIC, Size, etc.)

N. Other Research:

1. Library: Source:	2. On-line Services: Source:
Objective:	Objective:

3. Previous INPUT Reports: (list)

Code	Title	Relevant Information

4. Other Sources:

O. Data Tabulation & Analyses:

IV. DELIVERABLES

P. Report / Presentation Format: *Attached and check boxes:*

☐ 1. Table of Contents   *- See attached form RES 242/02*

☐ 2. List of Exhibits   *- See attached form RES 242/03*

☐ 3. Report Planning Form   *- See attached form RES 242/04*

☐ 4. Exhibits Planning Form   *- See attached form RES 242/05*

☐ 5. Data Base Layout   *- See attached form RES 242/06*

☐ 6. Data Base Report Layout   *- See attached form RES 242/07*

Q. Comments and Directions:

R.   Project Schedule Attached?   ☐ Yes   ☐ No

Project Code:	Full Title:

Section	Pages		
	# Exhibits	# Text	TOTAL
I. INTRODUCTION			
A. Objective, audience, and need			
B. Scope			
C. Methodology			
II. EXECUTIVE OVERVIEW			
A. Introduction			
B. Findings			
C. Conclusions			
D. Recommendations			
III.			
A.			
B.			
C.			
D.			
E.			
IV.			
A.			
B.			
C.			
D.			
V.			
A.			
B.			
C.			
D.			

Section	Pages		
	# Exhibits	# Text	TOTAL
VI.			
A.			
B.			
C.			
D.			
VII.			
A.			
B.			
C.			
D.			
SUB-TOTAL PAGES			
APPENDIX			
A. Definitions			
B. Data Base			
C. Reconciliation			
D.			
E. Questionnaire - Vendor*			
F. Questionnaire - User*			
G. Index			
TOTAL PAGES			

* If relevant and appropriate to include

Date _____

LIST OF EXHIBITS

Project Code:	Title:

Section/Subsection:	Exhibit Description:

RES 242/03 9/93

Confidential / Proprietary to INPUT

REPORT PLANNING FORM

Project Code:	Title:

Section:		Pages:		
Subsection:	Source: _____ Content	# Exhibits	# Text	TOTAL

EXHIBITS PLANNING FORM

Project Code:	Title:

Section:

ID*	Full Title of Exhibit	Type of Exhibit			
		Table	Bar Chart	Text	Other

*ID = Section/Subsection/Sequence number

DATA BASE LAYOUT

Date _____

Project Code:	Title:

Record:

Field Name	Description	Characteristics (Text/Numeric)	Length	Codes*

*Codes – Attach list of codes or contents of 'pop-up' menus

Date _____

DATA BASE REPORT LAYOUT

Project Code:	Title:

Report Title:

<div align="center">Format</div>

Confidential / Proprietary to INPUT

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section: I. Introduction		Pages: 7		
Subsection:	Source: _____ Content	# Exhibits	# Text	TOTAL
A. Description—	Outlines the objectives pursued in producing			
objectives, audience,	the report, e.g.:		$1\frac{1}{2}$	$1\frac{1}{2}$
uses	• identify areas of business where personal			
	computer developments affect the IT markets			
	• provide an overview of equipment and			
	software opportunities			
	• defines it as one of the MAPs program reports			
	• describes the audience it is intended for and the uses for it			
B. Scope	Describes the coverage of the report, e.g.:		$1\frac{1}{2}$	$1\frac{1}{2}$
	• application and systems software products			
	• personal computer systems			
	- U.S. markets only, 1992-1997			
	• discusses the issues addressed, e.g.: the			
	impact of new operating systems			
C. Methodology	Describes the research, e.g.:	1	1	2
	• user interviews by category			
	• vendor interviews by category			
	• library references by category			
	• INPUT reports used by name			
	• similar "how to read and use" comments			
	Describes analysis and forecasts preparation		1	1
	• assumptions			
	• use of vendor revenue			
	• adjustment for channels			
	• forecast presentation (current, $, rounded to nearest million)		1	1

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section:	II. Executive Overview			Pages 54		
Subsection:	Source: ___Report Analysis___ Content			# Exhibits	# Text	TOTAL
A. Introduction					$^1/_2$	$^1/_2$
B. Impact of Personal	• How will personal computers affect the business			$^1/_2$	$^1/_2$	1
Computers on	plans of MAPs clients?					
Traditional IT Markets	• Opportunities afforded by the personal computer				$^1/_2$	
1. Mainframe products	• What part, if any, of current business will be lost				$^1/_2$	$^1/_2$
2. Minicomputers	to the personal computer?				$^1/_2$	$^1/_2$
3. System software prod.	• What are the phases of development expected in				$^1/_2$	$^1/_2$
4. Application software	this market, and their timing?				$^1/_2$	$^1/_2$
products						
5. Network software					$^1/_2$	$^1/_2$
C. Opportunities for						
information services						
vendors						
1. Software products	• Valuation of markets				$^1/_2$	$^1/_2$
2. Consumer services	• Valuation of markets				$^1/_2$	$^1/_2$
via the personal						
computer						
3. Data base services	• Valuation of markets				$^1/_2$	$^1/_2$
4. Systems integration	• Valuation of markets				$^1/_2$	$^1/_2$
5. Desktop services	• Valuation of markets				$^1/_2$	$^1/_2$
6. Professional services	• Valuation of markets				$^1/_2$	$^1/_2$

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section:			Pages:		
Subsection:	**Source:** _____ **Content**		# Exhibits	# Text	TOTAL
D. Distribution channels					
1. Personal computer 　 channels	• Direct sales • mail order • retail store, etc.		½	½	1
2. Integrating these 　 channels with current 　 channels	• How can established PC channels be used for other products and integrated with existing IT channels?			½	½
3. Cost analysis of 　 personal computer 　 selling	• Models of various distribution channels: direct vs. field sales			1	1

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section: III. User Buying Patterns and Motivations		Pages: 45		
Subsection:	Source: User Q Content	# Exhibits	# Text	TOTAL
A. Personal Computer use			1	1
1. Current installations,	Q.4 May be difficult to do given the poor response and #			
value, and plan	of questionnaires	1	1	2
2. Applications use,	Q.6, Q.7, Q.8		1	1
current and plan				
B. Purchasing Patterns			1	1
1. Hardware evaluation				
sources	Q.9	1	1	2
2. Justifying the purchase	Q.10		1	1
3. Approval cycle	Q.11		1	1
4. Purchase source	Q.12	1	1	2
5. Price and contract	Q.18/19 (purchase/lease/rent)	1	1	2
C. Software use			1	1
1. Source of software	Q.26		1	1
2. Software evaluation				
sources	Q.27		1	1
3. Languages used	Q.25		$1/2$	$1/2$
4. Software customization	Q.35		$1/2$	$1/2$
5. Applications used	Q.20		1	1
6. Systems software used	Q.21		$1/2$	$1/2$
7. Software backup				
procedures	Q.36		1	1

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section:		Pages:		
Subsection:	**Source:** _____ **Content**	**# Exhibits**	**# Text**	**TOTAL**
D. Maintenance and support			1	1
1. Source of maintenance				
for hardware	Q.28		1	1
2. Satisfaction levels (HW)	Q.30	1	1	2
3. Maintenance fees (HW)	Q.29		1	1
4. Software maintenance	Q.31 and Q.32		1	1
5. Maintenance fees (SW)	Q.33		1	1
6. Satisfaction levels (SW)	Q.34	1	1	2
7. Training	Q.37 thru Q.41	1	2	3
8. Professional services used	Q.42 and Q.43		2	2
E. Improvements needed			1	1
1. Hardware	Q.44		1	1
2. Software	• includes communications and other		1	1
3. Maintenance	Q.44		$1/2$	$1/2$
4. Support	• includes training		$1/2$	$1/2$
5. Interfacing personal	Q.45		1	1
computers with company/dept. operations				
F. Replacing other systems	Q.46		1	1
with the personal computer				
1. Mainframes	" Each should contain the results of the study and INPUT's rationale		$1/2$	$1/2$
2. Minicomputers	" for the replacement; also our estimate of the future likely		$1/2$	$1/2$
3. External services	" impact		$1/2$	$1/2$
4. Other			$1/2$	$1/2$

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section: IV. Distribution Channels and Marketing Issues		Pages: 36		
Subsection:	Source: Vendor Questionnaire Content	# Exhibits	# Text	TOTAL
A. Equipment marketing			1	1
1. Distribution channels				
used	Q.10 and 11	1	3	4
2. Product features emphasized	Q.12		1	1
3. Market obstacles	Q.13		1	1
4. Major buyer characteristic	Q.17 (but data looks skimpy; maybe need library files	1	1	2
5. Customer needs	Q.15, including discussion of new OS			
B. Software marketing		1	1	
1. Distribution channels used	Q.22 and 23	1	3	4
2. Application software				
considerations	Q.25 and library	1	1	2
3. Systems software				
considerations	Q.26 and library	1	1	2
4. Impact of new operating				
environment	Q.27 and Q.28	1	1	2
C. Support services		1	1	
1. Professional services				
offered	Q.29		2	2
2. User training	Q.9		1	1
3. Maintenance	Q.8		1	1
4. Warranty procedures	Data from T.I. hotline inquiry	2	2	4

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section:		Pages:		
Subsection:	Source: _____ Content	# Exhibits	# Text	TOTAL
D. Product developments			1	1
1. Equipment and				
communications	Q.30		1	1
2. Maintenance	"		1	1
3. Support	"		1	1
4. Software	"		1	1
5. User training	"		1	1

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section: V. Major Hardware Vendors				Pages: 41	
Subsection:	Source: ___ Library files ___ Content		# Exhibits	# Text	TOTAL
A. Overview					
1. Apple Computer, Inc.				1	1
a. Historical performance					
of company	• Sales, revenues, growth		1	1	2
b. Principal products	• Description of main features			1	1
c. Processor used and OS	• Important because of power, OS			1	1
d. Applications and					
languages	• Compatibility, applications			1	1
e. Principal new					
developments	• Where's the company going?			1	1
2. Compaq (same as 1.)	See above		1	4	5
3. DEC (same as 1.)	See above		1	3	4
4. Dell (same as 1.)	See above		1	4	5
5. HP (same as 1.)	See above		1	3	4
6. IBM (same as 1.)	See above (more difficult)		1	4	5
7. Intel (same as 1.)	See above		1	4	5
8. NEC (same as 1.)	See above		1	3	4
9. Others (same as 1.)	Include mentions on Unisys, NCR, TI			4	4

RES 242 6/93

Confidential / Proprietary to INPUT

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section: VI. Major Software Vendors		Pages: 43		
Subsection:	Source: _____ VAP _____ Content	# Exhibits	# Text	TOTAL
A. Overview				
1. Borland			1	1
a. Historical performance				
of company	• Describe company's background, revenues, growth,			
	status, investors		1	1
b. Principal products	• Which products?	1	1	2
c. Compatibility/languages	• What do they run on?		1	1
d. Principal new				
developments	• Where to from here?	2	4	6
2. Computer Associates	`			
(same as 1.)	See above	2	4	6
3. IBM (same as 1.)	See above	2	3	5
4. Lotus (same as 1.)	See above	2	4	6
5. Merisel (same as 1.)	See above	1	3	4
6. Microsoft (same as 1.)	See above	2	4	6
7. Software Publishing				
Corp. (same as 1.)	See above	2	3	5
8. Others (same as 1.)	Include mentions on Unisys, NCR, TI	1	3	4

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section: VII. Market Forecasts and Recommendations		Pages: 42		
Subsection:	**Source:** _____Analyst_____ **Content**	# Exhibits	# Text	TOTAL
A. Equipment forecast overview	1993-1998, U.S. only		1	1
1. Systems, units and value	"	2	2	4
2. Storage, units and value	"	2	2	4
3. Printers, units and value	"	2	2	4
4. Market share analysis	top six vendors and their share	1	2	3
B. Software product forecast	1993-1998, U.S. only			
1. System software products	"	2	2	4
2. Applications software products	"	2	2	4
3. Market share analysis	Top six vendors in both markets and their share	1	2	3
C. Professional services forecast				
1. Market forecasts	1993-1998, U.S. only	1	1	2
2. Market share analysis	Top six vendors and their share	1	1	2
D. Systems integration forecasts				
1. Desktop projects	Characteristics	1	1	2
2. Market forecasts	1993-1998, U.S. only			
3. Market share analysis	Top six vendors and their share	1	1	2

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section:			Pages:		
Subsection:	Source: _____ Content		# Exhibits	# Text	TOTAL
E. Recommended vendor					
strategies					
1. System vendors	For Each:				
	• Strategy for product, marketing and distribution;				
	• Opportunities to target			1	1
2. Peripheral vendors	"			1	1
3. Software product vendors	"			1	1
4. Professional services					
and SI vendors	"			1	1
5. Processing services					
vendors	"			1	1

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section: Appendixes		Pages: 31		
Subsection:	Source: _____ Content	# Exhibits	# Text	TOTAL
A. Data base	• All detailed forecasts contained in the report	4	1	5
	• Statement of assumptions			
B. Reconciliation	• Compares these forecasts with those in previous reports	2	3	5
	• Gives reasons for changes			
C. Definitions	• Presents definitions applying to this report	1	4	5
D. Related INPUT reports			1	1
E. Questionnaires			15	15

Project Work Statement

Prepared by (print): CHRIS HARRIS	Date: 28.11.96

Project Title: NTT DATA MULTIMEDIA RESEARCH	Project Code: 4NTT2
Client Name*: NTT DATA	Project Manager: CHRIS HARRIS

Project Source: ☐ Program ☐ Multi-Client ☑ Custom ☐ Other

Project Type: ☐ Report ☐ Presentation ☑ Other (PROFILES)

Initiation Date: 7.10.96	Begin Production:
Midpoint Review: 15.12.96	Shipping Date:
First Draft Due:	

Resources Required:

Level of Effort (number of days): Consultant 26 R/A

Source—Internal/External (specify): INTERNAL - 14 DAYS

EXTERNAL - D.NATH 5 DAYS, AGNES TEMPER 7 DAYS

Contract Value: $ £ ¥ 19,500	Reimbursable Expenses: ☐ No ☑ Yes

Expense Budget: $ £ ¥ 1950
To Cover: Travel: ✓ Telephone: ✓
Report Preparation: ✓ Other: ATTENDANCE AT EXPO.

Project Description:

50 COMPANY PROFILES ON LEADING PLAYERS OF THE
EUROPEAN MULTIMEDIA INDUSTRY ACROSS THE
FOLLOWING SUBSECTORS: Interactive broadcasting inc. satellite
Internet games, Internet on-line services, Electronic commerce
and smart cards, Internet shopping services, Robotics, artificial
intelligence, video conferencing/video on demand, (including
platform graphics, multimedia/software issues)
Plus internal and external reports, marketing material to
be supplied in a corporate binder.

* Attach list for Multi-Clients   **For Custom and Multi-Client Projects

ACCOUNTING USE ONLY: Entered on current project list ☐

Project Specification Statement

Prepared by:	Approved by:
Date:	Date:

I. DESCRIPTION

A. Project Code:	B. Program:

C. Project Title:

D. Objectives: •

  •

  •

  •

E. Audience (order of priority):

	User/Vendor	Job Function	Type Company	Company Characteristics
1.				
2.				
3.				
4.				
5.				

F. Uses of Report:

G. Reasons for Choosing the Subject:

1.	
2.	
3.	
4.	

RES 242/01 9/93

Confidential / Proprietary to INPUT

H. Client Interest:	
Client	Interest Level/Comment

II. SCOPE

I. Scope of Study:

1.	Includes:
2.	
3.	
4.	
1.	Excludes:
2.	
3.	
4.	

J. Issues:

1.	
2.	
3.	
4.	
5.	
6.	
7.	

K. Forecast: ☐ No ☐ Yes	Period:
☐ Items to be Forecast	Level (e.g.: summary or detail*):
☐ IS Expenditures	
☐ Computer Equipment	
☐ Telecommunications	
☐ Personnel Expenses	
☐ Processing Services	
☐ Network Services	
☐ Professional Services	
☐ Systems Operations	
☐ Systems Integration	
☐ Software Products	
☐ Turnkey Systems	
☐ Other –	
☐ Other –	
☐ Other –	
☐ Other –	
☐ Other –	
☐ Other –	

L. Comments and Directions (include specific questions to be asked):

III. METHODOLOGY

M. Interview Profile:

1. Type of Interview and Interviewer Level

Type of Respondent	On-Site		Phone		Mail	TOTAL
	Consultant	R/A	Consultant	R/A		
User						
Vendor						
Other (specify)						
TOTAL						

2. Respondent Characteristics

Number of Interviews	Job Function	Company Characteristics (e.g.: SIC, Size, etc.)

N. Other Research:

1. Library: Source:	2. On-line Services: Source:
Objective:	Objective:

3. Previous INPUT Reports: (list)

Code	Title	Relevant Information

4. Other Sources:

O. Data Tabulation & Analyses:

IV. DELIVERABLES

P. Report / Presentation Format: *Attached and check boxes:*

☐ 1. Table of Contents   *- See attached form RES 242/02*

☐ 2. List of Exhibits   *- See attached form RES 242/03*

☐ 3. Report Planning Form   *- See attached form RES 242/04*

☐ 4. Exhibits Planning Form   *- See attached form RES 242/05*

☐ 5. Data Base Layout   *- See attached form RES 242/06*

☐ 6. Data Base Report Layout   *- See attached form RES 242/07*

Q. Comments and Directions:

R.   Project Schedule Attached?   ☐ Yes   ☐ No

TABLE OF CONTENTS

Date _____

: _____

n

need

	Pages		
	# Exhibits	# Text	TOTAL

Pages:		
# Exhibits	# Text	TOTAL

EXHIBITS PLANNING FORM

Project Code:	Title:

Section:						

ID*	Full Title of Exhibit	Type of Exhibit			
		Table	Bar Chart	Text	Other

*ID = Section/Subsection/Sequence number

Date _____

DATA BASE LAYOUT

Project Code:	Title:

Record:

Field Name	Description	Characteristics (Text/Numeric)	Length	Codes*

*Codes – Attach list of codes or contents of 'pop-up' menus

DATA BASE REPORT LAYOUT

Project Code:	Title:

Report Title:

Format

Project Code:	Title:

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section: I. Introduction				Pages: 7
Subsection:	Source: _____ Content	# Exhibits	# Text	TOTAL
A. Description—	Outlines the objectives pursued in producing			
objectives, audience,	the report, e.g.:		1 ½	1 ½
uses	• identify areas of business where personal			
	computer developments affect the IT markets			
	• provide an overview of equipment and			
	software opportunities			
	• defines it as one of the MAPs program reports			
	• describes the audience it is intended for and the uses for it			
B. Scope	Describes the coverage of the report, e.g.:		1 ½	1 ½
	• application and systems software products			
	• personal computer systems			
	- U.S. markets only, 1992-1997			
	• discusses the issues addressed, e.g.: the			
	impact of new operating systems			
C. Methodology	Describes the research, e.g.:	1	1	2
	• user interviews by category			
	• vendor interviews by category			
	• library references by category			
	• INPUT reports used by name			
	• similar "how to read and use" comments			
	Describes analysis and forecasts preparation		1	1
	• assumptions			
	• use of vendor revenue			
	• adjustment for channels			
	• forecast presentation (current, $, rounded to nearest million)		1	1

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section: II. Executive Overview	Page 54

Subsection:	Source: Report Analysis Content	# Exhibits	# Text	TOTAL
A. Introduction			$^1/_2$	$^1/_2$
B. Impact of Personal	• How will personal computers affect the business	$^1/_2$	$^1/_2$	1
Computers on	plans of MAPs clients?			
Traditional IT Markets	• Opportunities afforded by the personal computer		$^1/_2$	
1. Mainframe products	• What part, if any, of current business will be lost		$^1/_2$	$^1/_2$
2. Minicomputers	to the personal computer?		$^1/_2$	$^1/_2$
3. System software prod.	• What are the phases of development expected in		$^1/_2$	$^1/_2$
4. Application software	this market, and their timing?		$^1/_2$	$^1/_2$
products				
5. Network software			$^1/_2$	$^1/_2$
C. Opportunities for				
information services				
vendors				
1. Software products	• Valuation of markets		$^1/_2$	$^1/_2$
2. Consumer services	• Valuation of markets		$^1/_2$	$^1/_2$
via the personal				
computer				
3. Data base services	• Valuation of markets		$^1/_2$	$^1/_2$
4. Systems integration	• Valuation of markets		$^1/_2$	$^1/_2$
5. Desktop services	• Valuation of markets		$^1/_2$	$^1/_2$
6. Professional services	• Valuation of markets		$^1/_2$	$^1/_2$

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section:		Pages:		
Subsection:	Source: _____ Content	# Exhibits	# Text	TOTAL
D. Distribution channels				
1. Personal computer	• Direct sales • mail order • retail store, etc.	$\frac{1}{2}$	$\frac{1}{2}$	1
channels				
2. Integrating these	• How can established PC channels be used for other		$\frac{1}{2}$	$\frac{1}{2}$
channels with current	products and integrated with existing IT channels?			
channels				
3. Cost analysis of	• Models of various distribution channels: direct vs.		1	1
personal computer	field sales			
selling				

RES 242 6/93

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section: III. User Buying Patterns and Motivations			Pages: 45		
Subsection:	Source: _____ User Q _____ Content		# Exhibits	# Text	TOTAL
A. Personal Computer use				1	1
1. Current installations,	Q.4 May be difficult to do given the poor response and #				
value, and plan	of questionnaires		1	1	2
2. Applications use,	Q.6, Q.7, Q.8			1	1
current and plan					
B. Purchasing Patterns				1	1
1. Hardware evaluation					
sources	Q.9		1	1	2
2. Justifying the purchase	Q.10			1	1
3. Approval cycle	Q.11			1	1
4. Purchase source	Q.12		1	1	2
5. Price and contract	Q.18/19 (purchase/lease/rent)		1	1	2
C. Software use				1	1
1. Source of software	Q.26			1	1
2. Software evaluation					
sources	Q.27			1	1
3. Languages used	Q.25			$\frac{1}{2}$	$\frac{1}{2}$
4. Software customization	Q.35			$\frac{1}{2}$	$\frac{1}{2}$
5. Applications used	Q.20			1	1
6. Systems software used	Q.21			$\frac{1}{2}$	$\frac{1}{2}$
7. Software backup					
procedures	Q.36			1	1

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section:			Pages:		
Subsection:	**Source:** _____ **Content**	**# Exhibits**	**# Text**	**TOTAL**
D. Maintenance and support			1	1
1. Source of maintenance				
for hardware	Q.28		1	1
2. Satisfaction levels (HW)	Q.30	1	1	2
3. Maintenance fees (HW)	Q.29		1	1
4. Software maintenance	Q.31 and Q.32		1	1
5. Maintenance fees (SW)	Q.33		1	1
6. Satisfaction levels (SW)	Q.34	1	1	2
7. Training	Q.37 thru Q.41	1	2	3
8. Professional services used	Q.42 and Q.43		2	2
E. Improvements needed			1	1
1. Hardware	Q.44		1	1
2. Software	• includes communications and other		1	1
3. Maintenance	Q.44		$^1/_2$	$^1/_2$
4. Support	• includes training		$^1/_2$	$^1/_2$
5. Interfacing personal	Q.45		1	1
computers with company/dept. operations				
F. Replacing other systems	Q.46		1	1
with the personal computer				
1. Mainframes	" Each should contain the results of the study and INPUT's rationale		$^1/_2$	$^1/_2$
2. Minicomputers	" for the replacement; also our estimate of the future likely		$^1/_2$	$^1/_2$
3. External services	" impact		$^1/_2$	$^1/_2$
4. Other			$^1/_2$	$^1/_2$

RES 242 6/93

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section: IV. Distribution Channels and Marketing Issues		Pages: 36		
Subsection:	Source: Vendor Questionnaire Content	# Exhibits	# Text	TOTAL
A. Equipment marketing			1	1
1. Distribution channels				
used	Q.10 and 11	1	3	4
2. Product features emphasized	Q.12		1	1
3. Market obstacles	Q.13		1	1
4. Major buyer characteristic	Q.17 (but data looks skimpy; maybe need library files	1	1	2
5. Customer needs	Q.15, including discussion of new OS			
B. Software marketing		1	1	
1. Distribution channels used	Q.22 and 23	1	3	4
2. Application software				
considerations	Q.25 and library	1	1	2
3. Systems software				
considerations	Q.26 and library	1	1	2
4. Impact of new operating				
environment	Q.27 and Q.28	1	1	2
C. Support services		1	1	
1. Professional services				
offered	Q.29		2	2
2. User training	Q.9		1	1
3. Maintenance	Q.8		1	1
4. Warranty procedures	Data from T.I. hotline inquiry	2	2	4

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section:		Pages:		
Subsection:	Source: _____ Content	# Exhibits	# Text	TOTAL
D. Product developments			1	1
1. Equipment and				
communications	Q.30		1	1
2. Maintenance	"		1	1
3. Support	"		1	1
4. Software	"		1	1
5. User training	"		1	1

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section: V. Major Hardware Vendors			Pages: 41		
Subsection:	Source: __Library files__ Content		# Exhibits	# Text	TOTAL
A. Overview					
1. Apple Computer, Inc.				1	1
a. Historical performance					
of company	• Sales, revenues, growth		1	1	2
b. Principal products	• Description of main features			1	1
c. Processor used and OS	• Important because of power, OS			1	1
d. Applications and					
languages	• Compatibility, applications			1	1
e. Principal new					
developments	• Where's the company going?			1	1
2. Compaq (same as 1.)	See above		1	4	5
3. DEC (same as 1.)	See above		1	3	4
4. Dell (same as 1.)	See above		1	4	5
5. HP (same as 1.)	See above		1	3	4
6. IBM (same as 1.)	See above (more difficult)		1	4	5
7. Intel (same as 1.)	See above		1	4	5
8. NEC (same as 1.)	See above		1	3	4
9. Others (same as 1.)	Include mentions on Unisys, NCR, TI			4	4

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section: VI. Major Software Vendors		Pages: 43		
Subsection:	Source: _____ VAP _____ Content	# Exhibits	# Text	TOTAL
A. Overview				
1. Borland			1	1
a. Historical performance				
of company	• Describe company's background, revenues, growth,			
	status, investors		1	1
b. Principal products	• Which products?	1	1	2
c. Compatibility/languages	• What do they run on?		1	1
d. Principal new				
developments	• Where to from here?	2	4	6
2. Computer Associates	`			
(same as 1.)	See above	2	4	6
3. IBM (same as 1.)	See above	2	3	5
4. Lotus (same as 1.)	See above	2	4	6
5. Merisel (same as 1.)	See above	1	3	4
6. Microsoft (same as 1.)	See above	2	4	6
7. Software Publishing				
Corp. (same as 1.)	See above	2	3	5
8. Others (same as 1.)	Include mentions on Unisys, NCR, TI	1	3	4

RES 242 6/93

Confidential / Proprietary to INPUT

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section: VII. Market Forecasts and Recommendations		Pages: 42		
Subsection:	Source: ___Analyst___ Content	# Exhibits	# Text	TOTAL
A. Equipment forecast	1993-1998, U.S. only		1	1
overview				
1. Systems, units and value	"	2	2	4
2. Storage, units and value	"	2	2	4
3. Printers, units and value	"	2	2	4
4. Market share analysis	top six vendors and their share	1	2	3
B. Software product forecast	1993-1998, U.S. only			
1. System software products	"	2	2	4
2. Applications software				
products	"	2	2	4
3. Market share analysis	Top six vendors in both markets and their share	1	2	3
C. Professional services				
forecast				
1. Market forecasts	1993-1998, U.S. only	1	1	2
2. Market share analysis	Top six vendors and their share	1	1	2
D. Systems integration				
forecasts				
1. Desktop projects	Characteristics	1	1	2
2. Market forecasts	1993-1998, U.S. only			
3. Market share analysis	Top six vendors and their share	1	1	2

REPORT PLANNING FORM

Project Code: ???	Title: Systems and Software Opportunities in Personal Computers, 1993-1998

Section:		Pages:		
Subsection:	Source: _____ Content	# Exhibits	# Text	TOTAL
E. Recommended vendor				
strategies				
1. System vendors	For Each:			
	• Strategy for product, marketing and distribution;			
	• Opportunities to target		1	1
2. Peripheral vendors	"		1	1
3. Software product vendors	"		1	1
4. Professional services				
and SI vendors	"		1	1
5. Processing services				
vendors	"		1	1

INDEPENDENT CONSULTING SERVICE AGREEMENT

EXHIBIT A

I. CONSULTANT INFORMATION

Name:

Address:

Telephone: *NI No.:*

II. PROJECT INFORMATION

Project Manager:

Project Name: *Code:*

Agreement Date: *From:*   *To:*

Exhibit Date: *From:*   *To:*

Replaces Exhibit A: (If Applicable)

III. TASK DESCRIPTION

List and number project tasks and specify in detail the exact scope of the tasks. Attach project specifications, interview forms, etc.

IV.   REVIEW OF PROGRESS:

List task numbers and/or dates review of progress will be performed.

V.   DELIVERABLES/DUE DATES/FEES:

List task numbers, date due and fees for each task.

VI.   PAYMENT SCHEDULE:

List task numbers, invoice due date, and scheduled invoice payment date.

VII.   REIMBURSABLE EXPENSES

List type of expenses and maximum amount to be reimbursed. INPUT Travel Authorisation and Expense Report forms to be attached.

VIII.   AUTHORISATIONS

Signed: _____   *Signed:*   _____

Contractor: _____   *INPUT:*   _____
(Print Name)   *(Print Name)*

Date: _____   *Date:*   _____

PLEASE REMIT INVOICES TO: INPUT, ATTENTION: (ABOVE NAMED PROJECT MANAGER)

Independent Consulting Services Agreement

CONTRACTOR INSTRUCTIONS:

This independent Consulting Services Agreement is not valid until an authorised Requisition by the President is on file and the Agreement is signed by the President.

The Agreement must include an Exhibit A specifying in detail the work to be performed.

All work must be prepared and submitted in INPUT's style and format. Examples and policies may be attached to this Agreement and must be returned to the company prior to final invoice payment.

All work must be submitted for review according to the schedule set out in IV. Review of Progress.

All work must be submitted according to the schedule set out in V. Deliverables/Due Dates/Fees. If the schedule cannot be met the project manager must be informed and a new schedule set.

Invoices must be submitted to the project Manager according to VI. Payment Schedule in order for payment to be made on the scheduled dates.

- An invoice must be submitted, on contractor's formal letterhead/invoice form.

- The project code must be referenced on the invoice and the payment due must be in accordance with payment schedule of the Exhibit A.

- Expenses must be listed separately on the invoice and completed INPUT Expense Report form with attached receipts must be attached to the invoice.

- Only pre-authorised travel expenses, incurred visiting INPUT client/business contacts to perform a project will be reimbursed

- Copying and postage should be arranged to be done in an INPUT office where possible.

- All expenses are reimbursed at cost.

- Advance payment of any fees is not permitted.

- Payment is contingent upon satisfactory completion of all work submitted, in INPUT style and format, according to the specifications and schedules in the Exhibit A, and the return of all INPUT materials prior to submission of the final invoice.

- Payment is normally schedules to be paid within 7 to 10 working days after submission of the invoice to the project manager for approval.

- * All contracts and invoices must include the contractor's Tax Identification number for reporting to taxation authorities.

Car Mileage rate for the use of an employee's private car on company business is as follows:

Car Engine Size	Rate
up to 1000cc	27p/mile
up to 1500cc	34p/mile
up to 2000cc	43p/mile
over 2000cc	60p/mile